



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,083	03/01/2002	Ian Richard Joseph Bates	041618-0060	9636
22204	7590	07/27/2005	EXAMINER	
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			KING, BRADLEY T	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/980,083	BATES, IAN RICHARD JOSEPH	
	<b>Examiner</b> Bradley T. King	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 5/09/2005.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2 and 4-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received..

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 8, and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Eslinger (US#6120107).

Eslinger discloses all the limitations of the instant claims including: a control system having one or more inputs 26, 38 indicative of a vehicle operating state, and an output 44 for determining whether a compressor 14 is on-load or of-load, the system further including target means to calculate a target pressure (P, P<sub>ci</sub>, P<sub>co</sub>) for a reservoir 20 downstream of said compressor, said output being responsive to said target means, wherein the target pressure is higher (up to P<sub>co</sub>) during throttle-off modes than throttle-on modes (limited to P<sub>ci</sub>).

Regarding claim 2, see throttle input (26, 38).

Regarding claim 8, see column 4, lines 20-25.

Regarding claim 12, the system is capable of independent control of purge valve 40 and compressor 14.

Regarding claim 13, the selection of the target pressure (either  $P_{co}$  or  $P_{ci}$ ) is carried out in real time.

Claims 1-2, 8, and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tonegawa (US#4459085).

Tonegawa discloses all the limitations of the instant claims including: a control system having one or more inputs 4 indicative of a vehicle operating state, and an output for determining whether a compressor 10 is on-load or of-load, the system further including target means to calculate a target pressure ( $P_1$ ,  $P_2$ ) for a reservoir 12 downstream of said compressor, said output being responsive to said target means, wherein the target pressure is higher ( $P_2$ ) during throttle-off modes than throttle-on modes ( $P_1$ ).

Regarding claim 2, see column 3, lines 33-36.

Regarding claim 8, a zero throttle opening would fall within the light load engine operation range.

Regarding claim 12, the system is capable of independent control of purge valve 32 and compressor 10.

Regarding claim 13, the selection of the target pressure (either  $P_1$  or  $P_2$ ) is carried out in real time.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eslinger (US#6120107).

Regarding claim 4, Eslinger discloses all the limitations of the instant claim with exception to the higher target pressure being 8-10% higher. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate target pressures of Eslinger through routine calculation and/or experimentation to determine the optimum values for a particular compressed air system, thereby enhancing the performance of the system. Also note, *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 5, see figure 5.

Regarding claim 9, Eslinger discloses all the limitations of the instant claim with exception to a vehicle speed input and a vehicle engine speed input. The examiner takes official notice that vehicle engine speed and vehicle speed inputs are well known in the art and indicative of engine load as well as braking conditions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a vehicle speed input and a vehicle engine speed input in the system of Eslinger

to provide a greater degree of control and function to the control unit. It is also noted, the claim fails to recite any manipulation or use of the inputs.

Regarding claim 10, Eslinger further lacks the higher target pressure being 8-10% higher. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate target pressures of Eslinger through routine calculation and/or experimentation to determine the optimum values for a particular compressed air system, thereby enhancing the performance of the system. Also note, *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 11, see figure 5.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eslinger (US#6120107) in view of Nishar et al (US# 6036449).

Eslinger discloses all the limitations of the instant claims with exception to utilizing the compressor outlet temperature as a factor in the target pressure. Nishar et al disclose a similar brake system and further teach the reduction of pressure in response to increased compressor outlet temperatures. It would have been obvious to one of ordinary skill in the art at the time the invention was made to further include the temperature control taught by Nishar et al in the system of Eslinger to reduce compressor temperatures, thereby prolonging the compressor life.

### **Response to Arguments**

Applicant's arguments filed 5/09/2005 have been fully considered but they are not persuasive.

Regarding Eslinger and Tonegawa, it is maintained that the selection of different limit values reads upon the recited "target means to calculate a target pressure" as broadly defined by the claims. Note the systems both determine or ascertain which values to use based on the detected operating states of the system.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK

*Robert A. Siconolfi* 1/25/05  
ROBERT A. SICONOLFI  
PATENT EXAMINER